

COMPATIBILITY DETERMINATION
for
Wildlife Observation and Photography
on
San Pablo Bay National Wildlife Refuge

Uses: Wildlife Observation and Photography

Refuge Name: San Pablo Bay National Wildlife Refuge, Solano and Sonoma Counties, California

Establishing and Acquisition Authority(ies):

Migratory Bird Conservation Act of 1929 (16 U.S.C. 715-715d)

Act Authorizing the Transfer of Certain Real Property for Wildlife (16 U.S. C. 667b)

Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1544, Stat 884)

Refuge Purpose(s):

San Pablo Bay NWR purposes include:

“... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”
16 U.S.C. 715d (Migratory Bird Conservation Act),

“... particular value in carrying out the national migratory bird management program.” 16 U.S.C. 667b (An Act Authorizing the Transfer of Certain Real Property for Wildlife, or other purposes), and

“... to conserve (A) fish or wildlife which are listed as endangered species or threatened species... or (B) plants...” 16 U.S.C. 1534 (Endangered Species Act of 1973).

National Wildlife Refuge System Mission:

The mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd - 668ee.]

Description of Use(s):

Wildlife observation and photography are two of six priority public uses (the other uses are hunting, fishing, environmental education, and interpretation) promoted in the National Wildlife Refuge System Improvement Act of 1997.

Currently there is only one public access point for wildlife observation and photography on the San Pablo Bay NWR at the Tolay Creek/Lower Tubbs Island unit. A portion of the San Francisco Bay Trail is located on this unit and as such provides the visitor access to the San Pablo Bay via a 2.5-mile long dirt road that connects to levees that surround Tubbs Island.

The Refuge proposes to provide additional access points to observe and photograph wildlife and natural habitats as sites are acquired, restored or funding is made available. Anticipated public access (use) could increase as many as 5,000 additional visitors annually during the first few years with increasing visitor use expected annually thereafter.

Wildlife Observation

A portion of the San Francisco Bay Trail currently exists on the Tolay Creek/Lower Tubbs Island portion of the Refuge. Compatible wildlife observation opportunities are allowed year-round along the trail. Additional wildlife viewing will be accommodated through out the Refuge as access sites are developed. The first to be developed will be Cullinan Ranch and the Headquarters location which are already within the refuge boundary. Future wildlife observation opportunities are proposed at Sears Point, Sonoma Baylands, and Guadalcanal, once these sites are acquired. Kiosks and interpretative panels will be installed at the entry to each site to describe land management issues/practices, restoration activities and regulations at each site and of the wildlife that are present.

Photography

Wildlife photography would be permitted in all open areas of the Refuge. Opportunities for photography would also be developed at proposed sites when those sites are acquired. No plans for photo blinds are being considered at this time, but will be considered as opportunity, funding and proposals are presented.

Availability of Resources:

Existing staff resources are available to manage the current wildlife observation and photography program.

Before opening new areas of the Refuge to wildlife observation and photography additional Service funding will be necessary to construct interpretive panels, kiosk materials and/or photo blinds on the Refuge to enhance observation and photography opportunities. Grants and other funding sources will be sought as well. Maintenance of the additional facilities will require at least 0.25 FTE for mowing, trail, kiosk and sign repair, and trash collection throughout the year, particularly during refuge events such as the Flyway Festival, Wildlife Refuge Week, and Migratory Bird Day. An outdoor recreation planner would be needed to develop materials and infrastructure to facilitate safe and informative visitor experiences. The following table identifies the projected construction and staffing costs needed to open other areas of the Refuge to wildlife observation and photography.

Item	One-Time Cost	Annual Costs
Interpretive Panels	\$30,000	\$1,000
Kiosk Materials	\$20,000	\$1,000
Photo Blinds	\$10,000	\$1,000
Maintenance Staff (0.25 FTE)	\$20,000	\$17,000
Outdoor Recreation Planner (0.25 FTE)	\$27,000	\$22,000
Refuge Law Enforcement (0.25 FTE)	\$30,000	\$22,000

Anticipated Impacts of the Use(s):

Impacts associated with wildlife observation and wildlife photography would be limited to areas on and adjacent to designated trails. Human activities along wildlife observation trails can reduce foraging or even cause waterbirds to avoid foraging habitats adjacent to the trails (Klein 1993), especially when it involves close proximity and/or fast-moving human activities (Burger 1981). However, more recently, Lafferty (2001) found that joggers caused fewer disturbances to wintering snowy plovers than walkers, whereas dogs and horses caused more disturbance than either human activity. Activities along trails tend to displace wildlife and can cause localized reduction in species richness and abundance (Riffell et al. 1996). In addition, nest predation tends to increase near more frequently utilized areas for songbirds (Miller et al. 1998), raptors (Glinski 1976), colonial nesting species (Buckley and Buckley 1978), and waterfowl (Boyle and Samson 1985).

Off-trail human activity in habitat restoration areas can slow restoration efforts through soil compaction, vegetation trampling, and introduction of invasive plants. Litter from visitors can harm wildlife or be ingested by wildlife. Federally-listed salt marsh harvest mice and California clapper rails occur on the Refuge and may occur in proposed visitor areas. Visitors will be discouraged from going off-trail into wetland areas where these species may be located.

Wildlife photography tends to have the greatest disturbance impacts of the two proposed uses (Klein 1993, Morton 1995, Dobb 1998). Even a slow approach by wildlife photographers tends to have behavioral consequences to wildlife species (Klein 1993). The explanation for these impacts includes the tendency for casual photographers, with low power lenses, to get much closer to their subject than other activities require (Morton 1995), and the potential of some photographers to remain close to wildlife for extended periods of time, in an attempt to habituate the wildlife subject to their presence (Dobb 1988).

Public Review and Comment:

This draft CD will be available for public review and comments for 30 days from May 1, 2009. This CD was posted at the entry location of the refuge, emails were sent to partners, and public notices were submitted for advertisement in local city/county news press. Following the public review and comment period, comments and Service responses will be summarized here.

Further review of visitor opportunities on the Refuge will be evaluated during the Comprehensive Conservation Plan (CCP). All uses will be re-evaluated and open for discussion at public meetings.

Determination (Check One Below):

- _____ Use is Not Compatible
- _____ X Use is Compatible with Stipulations

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with Refuge purposes and the mission of the National Wildlife Refuge System, wildlife observation and photography can occur on the Refuge if the following stipulations are met:

- Wildlife observation and photography would be allowed at all designated access sites, only between sunrise and sunset, unless they are part of a refuge-led activity.
- Public access would be restricted to trails and other developed facilities.
- New areas of the Refuge would only be opened for wildlife observation and photography after fencing is installed in areas where protection is needed, regulatory signage is installed, trails and interpretive brochures are developed, and sufficient law enforcement staff is available to monitor public areas.
- Wildlife resources would also be protected by constructing information kiosks and interpretive panels to provide wildlife viewing tips and inform users about ethics and responsibilities of wildlife viewing.
- Regulations would be enforced to ensure public safety and to prevent resource impacts. Collection of plants, animals, and other specimens, debris, or artifacts would be strictly prohibited.

Justification:

Expanding existing wildlife observation and photography opportunities on the Refuge would allow visitors to experience, enjoy, and learn about native wildlife and plant species in the highly urbanized San Francisco Bay area. The Refuge provides one of the few undisturbed, natural viewscapes of the Bay, and has the potential to attract a high number of visitors. With the stipulations considered in this compatibility determination, expanding wildlife observation and photography would be compatible with Refuge purposes and the System mission.

After assessing the potential impacts from the uses proposed for the Refuge, it was determined that allowing these uses would not materially interfere with or detract from the purposes for which the refuge was created or the mission of the National Wildlife Refuge System. Wildlife observation and photography would allow the visiting public to enjoy, experience, and learn about native fish, wildlife, and plants in these unique and rare habitats of the northern San Francisco Bay area.

Mandatory Re-evaluation Dates (Provide Month and Year)

 X Mandatory 15-year Reevaluation Date (for priority public uses)

 Mandatory 10-year Reevaluation Date (for all uses other than priority public uses)

Literature Cited:

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- Morton, J. M. 1995. Management of human disturbance and its effects on waterfowl. Pages F59-F86 in W. R. Whitman, T. Strange, L. Widjeskog, R. Whittemore, P. Kehoe, and L. Roberts (eds.). *Waterfowl habitat restoration, enhancement and management in the Atlantic Flyway*. Third Ed. Environmental Manage. Comm., Atlantic Flyway Council Techn. Sect., and Delaware Div. Fish and Wildl., Dover, DE. 1114pp.
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Refuge Determination

Prepared by: _____
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